Technical Disclosure Commons

Defensive Publications Series

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ADDITIONAL REMOVABLE CONTROL PANEL IN STEERING WHEEL FORAS REMOTE CONTROLLER FOR GAMING

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ADDITIONAL REMOVABLE CONTROL PANEL IN STEERING WHEEL FOR / AS REMOTE CONTROLLER FOR GAMING

Technical task:
Steering wheels today have either physical buttons for operation or haptically sensory touch areas for controlling various contents in the instrument cluster for driving-relevant or infotainment / entertainment content.

With increasing automated driving, more and more new uses are becoming possible in the vehicle that go beyond actual driving. Since there will be longer distances in the future where the driver no longer has to actively steer the vehicle.

Initial situation:
The components are permanently installed in the vehicle and hardly any additional functions can be used.

Solution:
The new idea is to install an additional control panel in the steering wheel, which on the one hand covers driving and infotainment / entertainment functions, but on the other hand also serves as a game controller. As soon as you firmly connect this additional control panel to the steering wheel, it has pure driving or infotainment / entertainment relevant tasks. But when you are in autonomous driving mode, you take out the panel that changes its surface and it switches to game mode, i.e. either a display appears or illuminates a certain area with game-relevant symbols. This means that the customer now has the opportunity to control the displays in the vehicle or can play games with them. A direction sensor is built into the control panel, i.e. if you point to the desired screen, it is activated for gaming.

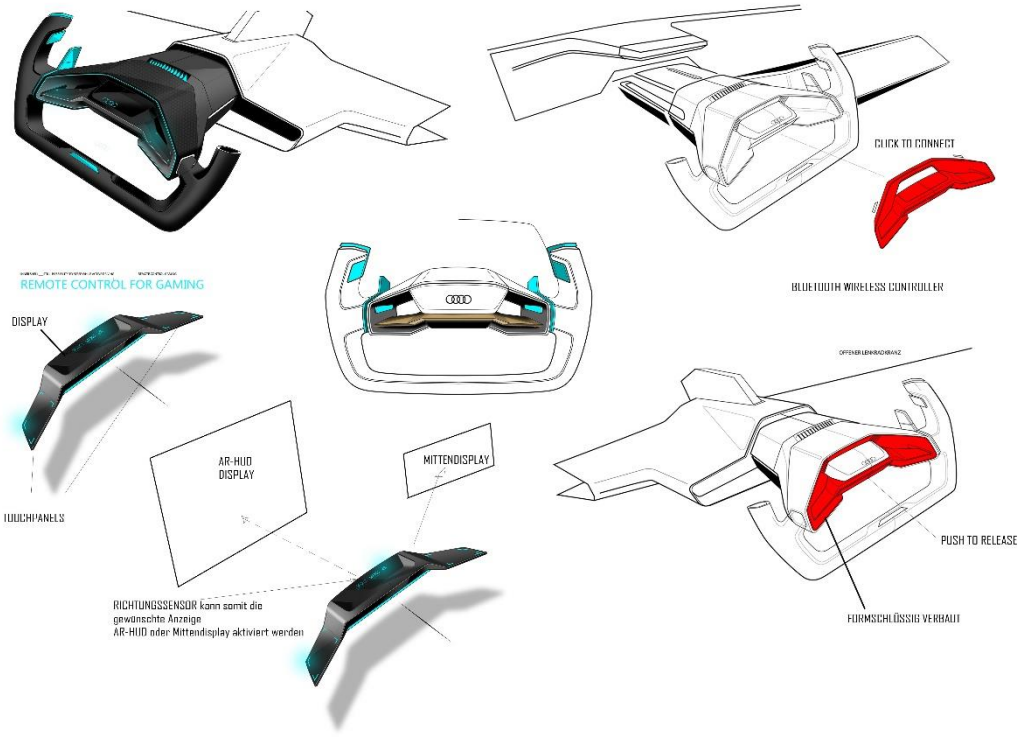
The control panel consists of physical and digital keys and can be freely configured, i.e. it can provide additional functions for driving or gaming.

This control panel does not influence the previous driving relevant tasks.

Advantages:

- Additional control element in the steering wheel on which additional individual functions can be stored that are important for the driver while driving
- Removable - can take on a 2nd task, for example as a gaming controller for autonomous driving
- Offers the customer a new experience during the autonomous journey,
- New business areas can be reached through the flexibility of the control panel, beyond gaming,
- Direction sensor in the control panel can activate and thus make use of different displays in the vehicle
- The controller itself has a variety of sensors, e.g. motion-tilt sensors, voice modules, which make controlling much more lively and intuitive

Possible application:



- Simple locking of the control gear in the steering wheel - thus positive locking
- Easy release oft he control gear by push button.
- The signal is transmitted without cables via Bluetooth or NFC (Near field communication)
- The control panel has parts that are designed as a display and others are covered by sensor surfaces that are illuminated
- There are physical and digital sensory buttons / controls with haptic feedback.
- The controller itself has a variety of tilt sensors, voice modules, which make controlling much more lively and intuitive